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well as material costs) by shipyard production shop and by ship work breakdown structure, (SWBS). It enables management to assess the impact on the shipyards and ship systems of:

Changes in depot-level maintenance/alterations policy;

Major changes in force levels and/or composition; and Budgetary constraints.

DMPPS consists of a network of interdependent computer programs written in FORTRAN IV. It was developed at DTNSRDC using the CDC 6000 series computers and was subsequently converted for the IBM 360/370 series computers. It is now installed and operational at the NAVSEA 070 computer terminal (which accesses an IBM 370/168 computer). This document presents the IBM 360/370 version of the DMPPS program modules. The modules have been grouped into six subsystems. Each of Volumes 2-7 of this document describes, in detail, one of these subsystems. An executive summary of the entire DMPPS is presented in Volume 1. The content of the seven volumes is indicated as follows:

- A048 416) Volume 1 - Executive Summary
Volume 2 - Preprocessor Subsystem
Volume 3 - Alterations Subsystem
Volume 4 - Repair Subsystem
A053 956 Volume 5 - Synthesizer Subsystem
Volume 6 - Report Generator Subsystem
Volume 7 - Feedback Subsystem

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ABSTRACT

The Depot Maintenance Planning and Programming System (DMPPS) is a large computer system developed over a period of two and a half years by the David W. Taylor Naval Ship Research and Development Center (DTNSRDC), Code 186 for the Naval Sea Systems Command (NAVSEA), Code 070T. The System was developed to project shipyard resource requirements (i.e., labor mandays and costs as well as material costs) by shipyard production shop and by ship work breakdown structure (SWBS). It enables management to assess the impact on the shipyards and ship systems of

Changes in depot-level maintenance/alterations policy

Major changes in force levels and/or composition

Budgetary constraints

DMPPS consists of a network of interdependent computer programs written in FORTRAN IV. It was developed at DTNSRDC using the CDC 6000 series computers and was subsequently converted for the IBM 360/370 series computers. It is now installed and operational at the NAVSEA 070 computer terminal (which accesses an IBM 370/168 computer). This document presents the IBM 360/370 version of the DMPPS program modules. The modules have been grouped into six subsystems. Each of Volumes 2-7 of this document describes, in detail, one of these subsystems. An executive summary of the entire DMPPS is presented in Volume 1. The content of the seven volumes is indicated as follows:

- Volume 1 - Executive Summary
- Volume 2 - Preprocessor Subsystem
- Volume 3 - Alterations Subsystem
- Volume 4 - Repair Subsystem
- Volume 5 - Synthesizer Subsystem
- Volume 6 - Report Generator Subsystem
- Volume 7 - Feedback Subsystem

7 FEEDBACK SUBSYSTEM

The shipyard feedback subsystem of the Depot Maintenance Planning Programming System (DMPPS) consists of two computer programs which process data on completed availabilities. The programs provide Depot Maintenance Planning Module (DMPM) profiles and shop vectors for repairs and alterations. Results obtained from the repair data may be used to update the mean values used in the repair data base. Results obtained from the alteration data may be used if the particular alterations are scheduled again.

Data from the shipyards are compiled by the Long Beach computer program 445 and sent on magnetic tape to DTNSRDC, Code 187, where the information is placed on a disk device. The file may have certain elements which are incompatible with FORTRAN programs and these incompatibilities are removed by a COBOL preprocessor program.

The program FDBK is run for selected groups of Customer Order Acceptance Records (COAR's) to obtain hard copy and/or punched cards for use in updating the data bases. The COAR groupings are selected to provide useful data base improvements, e.g., all repair COAR's for carrier types might be grouped. Alterations are reported by full job order number, and as such may be cross-referenced with departure reports to obtain the actual alteration identification numbers which appear in SAMIS.

A diagram of the subsystem is shown in Figure 7.0-1.

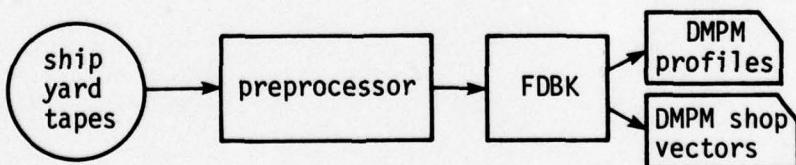


Figure 7.0-1 - Block Diagram of Feedback Subsystem

7.1 PROGRAM FEEDBACK-PREPROCESSOR

7.1.1 DESCRIPTION

This program reads the shipyard shop data file and reformats it for use in program FDBK. This reformatting is necessary because certain entries in the data file may contain negative values as the result of transfer of funds. The negative values will be ignored by subsequent programs, since the transferred funds will have been entered elsewhere in the file. FORTRAN programs cannot read the negative sign superimposed by COBOL on the entries under consideration.

The COBOL preprocessor program reads each entry and, when a negative sign occurs, rewrites it as the leftmost character in the word; the numerical value remains right adjusted. If the third, fourth, and fifth characters of the COAR are nonnumeric, the program resets them to "000". The new file created in this manner, now compatible with FORTRAN read statements, is catalogued and copied to output.

7.1.2 RUN SET-UP

The following set-up is used to run the FEEDBACK-PREPROCESSOR program on the CDC 6700 computer:

```
USER,CM70000.  
CHARGE,USER,XXXXXXXXXX.  
ATTACH,TAPE1,FEEDBACKFILE,ID=CAAE.  
ATTACH,PROG,FEEDBACKPREPROCESSOR,ID=CAAE. OBJECT CODE OF PREPROCESSOR  
REQUEST,TAPE7,*PF. EXECUTE PREPROCESSOR  
PROG.  
CATALOG,TAPE7,FEEDBACKFILE,ID=USER,AC=XXXXXXXXXX. NEW FEEDBACK FILE  
PURGE,TAPE1.  
REWIND,TAPE7.  
COPYSBF,TAPE7,OUTPUT.  
7/8/9 END OF RECORD
```

Feedback Preprocessor card inputs

7/8/9 END OF RECORD
6/7/8/9 END OF FILE

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7.1.3 INPUT

7.1.3.1 Card Input

An input card which specifies the number of files to be processed is required in the following format:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Picture</u>
NUMBER-OF-FILES	Number of files to be processed	1-2	99
FILLER	Filler	3-80	X(78)

The shipyard shop data file is assigned to unit 7 and is organized as shown in Figure 7.1-1.

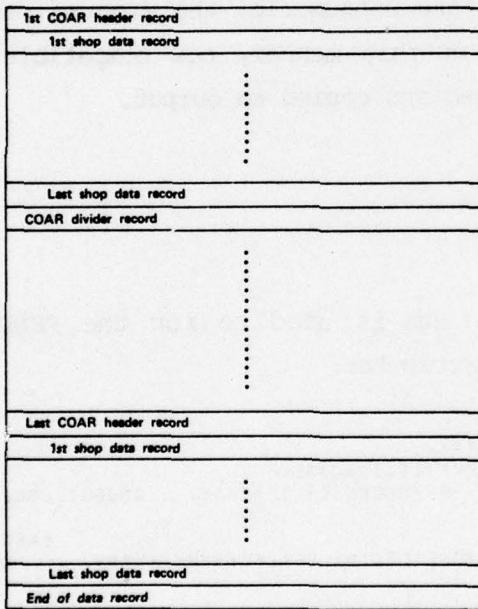


Figure 7.1-1 - Organization of Shipyard Shop Data File

7.1.3.2 Unit 7 - Shipyard Shop Data File

Data on completed shipyard work are grouped into bookkeeping units called COAR's (Customer Order Acceptance Records). These data are obtained from each yard and stored on the disk. The format of each record in the file is as follows:

INFILE-REC1 (Shop Data Record)

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Picture</u>
DATA1	First two characters of the COAR field	1-2	XX
AVAILABILITY	Next three characters of the COAR field	3-5	XXX
DATA2	SWBS and segment counter	6-13	X(8)
DATA3	Shop number		XX
MANDAYS1	First character of mandays field		X
MANDAYS2	Next seven characters of mandays fields		S9(7)
MATERIAL1	First character of material expenditures field	14-103*	X
MATERIAL2	Next seven characters of material expenditures field		S9(7)
TOTAL1	First character of total expenditures field		X
TOTAL2	Next seven characters of total expenditures field		S9(7)
FILLER	Filler		X(4)
DATA	Sequence number	104-108	X(5)

*This group occurs three times.

INFILE-REC2 (All Other Records)

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Picture</u>
WORK-CATEG	First two characters of the COAR	1-2	XX
HEAD-AVAILABILITY-IN	Next three characters of the COAR	3-5	XXX
FILLER	Filler	6-108	X(103)

7.1.4 WORKING STORAGE

The following format is used for working storage:

<u>Variable Name</u>	<u>Description</u>	<u>Picture</u>
MINUS VALUE "-"	Negative Sign	X
INDEXX	Loop Index	9
COUNTER	Counter for the number of files to be processed	99
NOTHING VALUE "000"	Three zero characters	XXX
TEMP-STORAGE1	Absolute value of mandays	9(7)
TEMP-STORAGE2	Absolute value of material expenditures	9(7)
TEMP-STORAGE3	Absolute value of total expenditures	9(7)

7.1.5 OUTPUT

The modified shipyard file is assigned to unit 1 with PICTURE X(108). When an internal counter exceeds the number of files specified on the input card, the number of files as well as the counter, is written to output. The format is the same as that used on unit 7. (See Figure 7.1-1.)

A sample of the output is given in Section 7.1.7.

7.1.6 PROGRAM LISTING

IDENTIFICATION DIVISION.	PRE 10	
PROGRAM-ID. FEEDBACK-PREPROCESSER	PRE 20	
ENVIRONMENT DIVISION.	PRE 30	
CONFIGURATION SECTION.	PRE 40	
INPUT-OUTPUT SECTION.	PRE 50	
FILE-CONTROL.	PRE 60	
SELECT INFILE ASSIGN TO TAPE1-FZ.	PRE 70	
SELECT CARDFILE ASSIGN TO INPUT.	PRE 80	
SELECT OUTFILE ASSIGN TO TAPE7-FZ.	PRE 90	
DATA DIVISION.	PRE 100	
FILE SECTION.	PRE 110	
FD INFILE	PRE 120	
LABEL RECORDS ARE OMITTED	PRE 130	
RECORD CONTAINS 108 CHARACTERS	PRE 140	
DATA RECORD IS INFILE-REC1 INFILE-REC2.	PRE 150	
01 INFILE-REC1.	PRE 160	
03 DATA1	PICTURE XX.	PRE 170
03 AVAILABILITY	PICTURE XXX.	PRE 180
03 DATA2	PICTURE X(8).	PRE 190
03 DETAILS OCCURS 3 TIMES.		PRE 200
05 DATA3	PICTURE XX.	PRE 210
05 MANDAYS1	PICTURE X.	PRE 220
05 MANDAYS2	PICTURE S9(7).	PRE 230
05 MATERIAL1	PICTURE X.	PRE 240
05 MATERIAL2	PICTURE S9(7).	PRE 250
05 TOTAL1	PICTURE X.	PRE 260
05 TOTAL2	PICTURE S9(7).	PRE 270
05 FILLER	PICTURE X(4).	PRE 280
03 DATA4	PICTURE X(5).	PRE 290
01 INFILE-REC2.		PRE 300
03 WORK-CATEG	PICTURE XX.	PRE 310
03 HEAD-AVAILABILITY-IN	PICTURE XXX.	PRE 320
03 FILLER	PICTURE X(103).	PRE 330
FD OUTFILE	PRE 340	
LABEL RECORDS ARE OMITTED	PRE 350	
RECORD CONTAINS 108 CHARACTERS	PRE 360	
DATA RECORD IS OUTFILE-REC.	PRE 370	
01 OUTFILE-REC	PICTURE X(108).	PRE 380
FD CARDFILE	PRE 390	
LABEL RECORDS ARE OMITTED	PRE 400	
RECORD CONTAINS 80 CHARACTERS	PRE 410	
DATA RECORD IS CARDFILE-REC.	PRE 420	
01 CARDFILE-REC.	PRE 430	
03 NUMBER-OF-FILES	PICTURE 99.	PRE 440
03 FILLER	PICTURE X(78).	PRE 450
WORKING-STORAGE SECTION.	PRE 460	
01 WORK-AREA1.	PRE 470	
03 MINUSS VALUE "--"	PICTURE X.	PRE 480
03 INDEXX	PICTURE 9.	PRE 490
03 COUNTER	PICTURE 99.	PRE 500
03 NOTHING VALUE "000"	PICTURE XXX.	PRE 510
03 TEMP-STORAGE1	PICTURE 9(7).	PRE 520
03 TEMP-STORAGE2	PICTURE 9(7).	PRE 530
03 TEMP-STORAGE3	PICTURE 9(7).	PRE 540
PROCEDURE DIVISION.	PRE 550	

INITIALIZATION.	PRE 560
OPEN INPUT INFILE CARDFILE OUTPUT OUTFILE.	PRE 570
READ CARDFILE AT END DISPLAY " NO DATA CARD INPUT "	PRE 580
CLOSE INFILE CARDFILE OUTFILE	PRE 590
STOP RUN.	PRE 600
MOVE 1 TO COUNTER.	PRE 610
CLOSE CARDFILE.	PRE 620
PROCESS-HEADER.	PRE 630
READ INFILE AT END GO TO PARA-FOR-IF-TEST.	PRE 640
WHERE-YOU-WERE.	PRE 650
IF HEAD-AVAILABILITY-IN NOT NUMERIC	PRE 660
DISPLAY WORK-CATEG HEAD-AVAILABILITY-IN " CHANGED TO "	PRE 670
WORK-CATEG NOTHING	PRE 680
MOVE NOTHING TO HEAD-AVAILABILITY-IN.	PRE 690
WRITE OUTFILE-REC FROM INFILE-REC2.	PRE 700
READ-DATA.	PRE 710
READ INFILE AT END DISPLAY " UNEXPECTED END OF FILE "	PRE 720
CLOSE INFILE OUTFILE STOP RUN.	PRE 730
PERFORM SWITCH-SIGN VARYING INDEXX FROM 1 BY 1	PRE 740
UNTIL INDEXX EQUAL 4.	PRE 750
IF AVAILABILITY NOT NUMERIC MOVE NOTHING TO AVAILABILITY.	PRE 760
WRITE OUTFILE-REC FROM INFILE-REC1.	PRE 770
IF MATERIAL2 (3) EQUAL "9999999" GO TO PROCESS-HEADER.	PRE 780
GO TO READ-DATA.	PRE 790
SWITCH-SIGN.	PRE 800
MOVE MANDAYS2 (INDEXX) TO TEMP-STORAGE1.	PRE 810
MOVE MATERIAL2 (INDEXX) TO TEMP-STORAGE2.	PRE 820
MOVE TOTAL2 (INDEXX) TO TEMP-STORAGE3.	PRE 830
IF MANDAYS2 (INDEXX) NEGATIVE	PRE 840
MOVE MINUSS TO MANDAYS1 (INDEXX).	PRE 850
IF MATERIAL2 (INDEXX) NEGATIVE	PRE 860
MOVE MINUSS TO MATERIAL1 (INDEXX).	PRE 870
IF TOTAL2 (INDEXX) NEGATIVE	PRE 880
MOVE MINUSS TO TOTAL1 (INDEXX).	PRE 890
MOVE TEMP-STORAGE1 TO MANDAYS2 (INDEXX).	PRE 900
MOVE TEMP-STORAGE2 TO MATERIAL2 (INDEXX).	PRE 910
MOVE TEMP-STORAGE3 TO TOTAL2 (INDEXX).	PRE 920
PARA-FOR-IF-TEST.	PRE 930
ADD 1 TO COUNTER.	PRE 940
DISPLAY "COUNTER" COUNTER	PRE 950
DISPLAY "NUMBER OF FILES" NUMBER-OF-FILES	PRE 960
IF COUNTER GREATER THAN NUMBER-OF-FILES	PRE 970
CLOSE INFILE OUTFILE STOP RUN.	PRE 980
GO TO WHERE-YOU-WERE.	PRE 990

7.1.7 SAMPLE RUN

A tape file obtained from the Norfolk Naval Shipyard was used for the sample run. The file was generated at 800 BPI, with a blocking factor of 20. Since the tape was not compatible with the NOSBE Operating system of the CDC computers, a system utility routine, COPYBLK, was used to convert the tape to a standard NOSBE tape. A disk file was also made of the information on the tape.

The following control card set-up is used for running COPYBLK:

```
USER,CM68000,NT1,NT1.  
CHARGE,USER,XXXXXXXXXX.  
VSN(TAPEIN=SLOTNN=LB4451) YARD TAPE IN SLOT NN  
REQUEST,TAPEIN,HD,NORING,S,EB.  
VSN(TAPE2=SLOTNN=FDBK) STANDARD NOSBE TAPE IN SLOT NN  
LABEL(TAPE2,L=FDBKDATE,N,D=HY,RING)  
REQUEST,TAPE1,*PF.  
BEGIN,COPYBLK,,28,100,2160,TAPEIN,TAPE1. COPY YARD TAPE TO DISK  
CATALOG,TAPE1,YDATE,IO=USER,A0=XXXXXXXXXX.  
REWIND,TAPE1.  
COPYSBF,TAPE1,OUTPUT.  
REWIND,TAPE1.  
COPYBF,TAPE1,TAPE2. COPY TO STANDARD NOSBE TAPE  
6/7/8/9 END OF FILE
```

The file was subsequently run through the FEEDBACK-PREPROCESSOR program. A partial listing of the resulting file is given here.

Unit 7 (Input) - Shipyard Shop Data File

Unit 1 (Output) - Modified Shipyard Shop Data File

7.2 PROGRAM FDBK

7.2.1 DESCRIPTION

This program processes shipyard feedback tapes which contain data sorted by COAR. The data can be compiled for individual COAR's or for sets of COAR's; a maximum of ten sets can be input. The SWBS data are grouped into DMPM's.

After the first record of the feedback file is read and the COAR header record is written, a flag is read to determine whether Ship Systems Index (SSI) numbers are on the file. If SSI numbers are used instead of Ship Work Breakdown Structure (SWBS) numbers, the SSI's are converted to the corresponding SWBS's. However, if SWBS numbers are on the file, and a SWBS is read which does not belong to a DMPM, a message is written on the "illegal SWBS" file.

Certain shop numbers may require adjustment. Shop number 68 is combined with shop number 65. Shops 6, 11, 17, 23, 26, 31, 36, 38, 41, 51, 56, 64, 65, 67, 71, 72, 81, 94, and 99 are considered unique shops; all others are combined into shop number 1. These shops may optionally be converted to standard functional shops.

Mandays are accumulated for each shop within a DMPM; material expenditures, total expenditures, and mandays are accumulated for each DMPM.

When a COAR divider record is encountered ($\text{MAT}(1) = 99999999$), the computations are written on intermediate files according to the COAR set to which they belong. When the entire feedback file has been read, each intermediate file is rewound, and the data are read and processed one file at a time. Reports on each COAR set are generated for each DMPM. These reports contain material expenditures, total labor expenditures, total mandays, and the ratio of the DMPM mandays to total mandays.

Other COAR set reports contain the ratio of mandays for each shop to total DMPM mandays, while other reports give the actual mandays for each shop of each DMPM. These shop reports can also be produced for each full job order number instead of for each DMPM. Figure 7.2-1 shows a hierarchical diagram of the FDBK program.

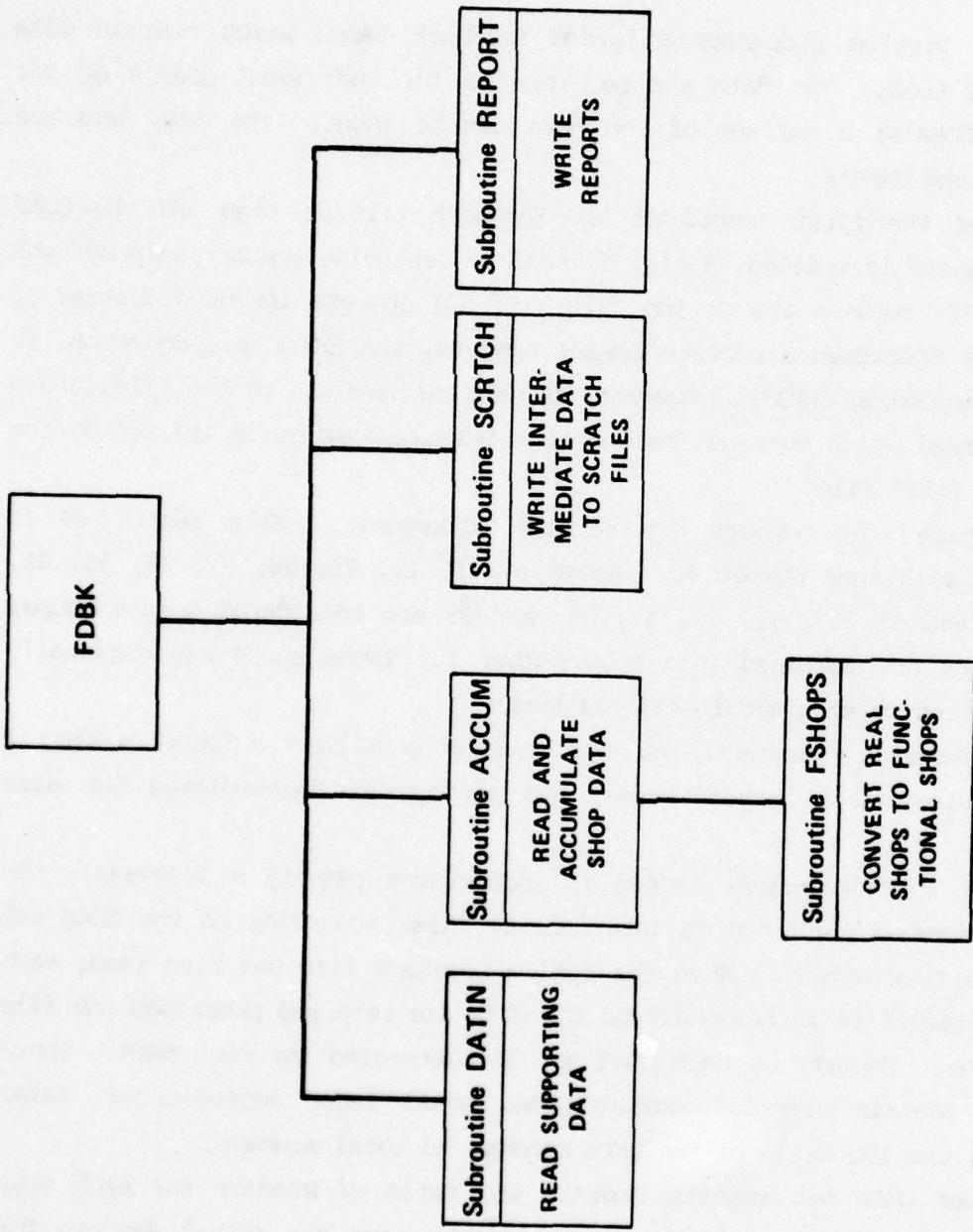


Figure 7.2-1 - Hierarchical Diagram of FDBK

Subroutine DATIN

This routine reads and processes bookkeeping information and program instructions. The user specifies which COAR sets are to be processed. The SSI numbers and the corresponding SWBS numbers are read and stored. The flag IFS, which indicates whether real shops are to be converted to functional shops, is read, and if the conversion option is not desired (IFS = 0), control returns to FDBK. Otherwise, the actual conversion data are read.

Subroutine SCRATCH

This routine writes intermediate shop calculations to scratch files. Each set of COAR calculations is written to the file corresponding to the input set or sets to which the COAR belongs.

Subroutine ACCUM

This routine accumulates intermediate results on manning and expenditures.

The flag denoting that the SSI designation is on the shipyard data file is read before the first COAR for each ship. The COAR header record is read and written to a file containing all header records of COAR's being processed. If all COAR's of the file are to be processed in a combined form, the number of sets of COAR's (NSETC) equals 99.

The COAR divider records are identified by testing whether the material expenditures of the first data segment, MAT(1), are equal to 99999999. COAR's not specified on the input selection cards are bypassed and SWBS numbers are checked. If the SWBS number is not included in the SWBS-to-DMPM conversion, the record is bypassed.

If SSI numbers are on the file, they are converted to SWBS numbers. If the functional shop option is selected (IFS = 1), the conversion routine FSHOPS is called.

Subtotals are calculated for shop and DMPM mandays and for DMPM material and labor expenditures.

Subroutine REPORT

This routine writes three types of reports for each selected set of COAR's: (1) the DMPPM profile report, (2) the shop ratio report, and (3) the shop manning report.

Intermediate results are read from the scratch files, units 1-10, and totals are computed for shops and DMPPM's for the selected sets of COAR's.

The vectors of the shop ratio report, consisting of the DMPPM, the manning ratio for each shop, and the total mandays, may be punched onto cards if the user desires. These vectors can then be used to update the library of repair shop vectors.

Subroutine FSHOPS

This routine converts real shops to functional shops. The mapping varies among the yards and is input as described in Section 7.2.3.1. The actual conversion is performed by multiplying the mandays of a real shop by the proportion which the real shop contributes to a particular functional shop. This result is multiplied by the variable FACT; FACT = 1 when SSI numbers are not encountered or when SSI numbers other than 860 are encountered. When SSI = 860, FACT takes on the values of the proportions that SSI = 860 contributes to SWBS numbers 210, 830, 986, and 992.

7.2.2 RUN SET-UP

The following set-up is used to run the FDBK program on the CDC 6700 computer:

```
USER,CH120000.  
CHARGE,USER,XXXXXXXXXX.  
ATTACH,TAPE13,FEEDBACKFILE,IC=CAAE.  
ATTACH,TAPE15,SSI, ID=CAAE.  
ATTACH,TAPE19,XDMPM, ID=CAAFF.  
ATTACH,FDBK, ID=CAAFF.  
FOBK.  
REWIND,TAPE14,TAPE16,TAPE17,TAPE18.  
COPYSBF,TAPE14,OUTPUT.  
COPYBF,TAPE16,OUTPUT.  
COPYBF,TAPE17,OUTPUT.  
COPYBF,TAPE18,OUTPUT.  
EXIT.  
REWIND,TAPE14,TAPE16,TAPE17,TAPE18.  
COPYSBF,TAPE14,OUTPUT.  
COPYBF,TAPE16,OUTPUT.  
COPYBF,TAPE17,OUTPUT.  
COPYBF,TAPE18,OUTPUT.  
7/8/9    END OF RECORD
```

SSI-TO-SWBS CONVERSION
SWBS-TO-DMPM CONVERSION
OBJECT CODE OF FEEDBACK PROGRAM
EXECUTE PROGRAM

COAR HEADER RECORDS
CMPM PROFILE REPORT
SHOP RATIO REPORT
SHOP MANNING REPORT
DUMP FILES AT ABNORMAL TERMINATION

FDBK card inputs (unit 11)

```
7/8/9    END OF RECORD  
6/7/6/9   END OF FILE
```

7.2.3 INPUT

Card inputs are made using unit 11. The formats for these cards are given in Section 7.2.3.1.

Unit 11 - Card inputs which (1) identify the number of sets of COAR's to be processed and the COAR numbers within each set, (2) set the option flag to convert real shops to functional shops, (3) specify the shop conversion parameters, (4) set the punch option flag, and (5) add a comment in the report headers.

The following additional units are used to input information from disk files:

- Unit 13 - Shop data from shipyards
- Unit 15 - SSI-to-SWBS conversion
- Unit 19 - SWBS-to-DMPM conversion

The format for these files is given in Sections 7.2.3.2 through 7.2.3.4.

7.2.3.1 Unit 11 - Card Input

Eight card types are input to FDBK. The formats for these card types are as follows:

Card Type 1

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
NSETC	Number of sets of COAR's; all COAR's from the file are combined if NSETC = 99	1-2	I2

Card Type 2. This card is repeated NSETC times.

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
NCK	Number of COAR's in a set	1-2	I2
KOARS	COAR numbers within a set; there will be NCK of these numbers	3-52	10I5

Card Type 3

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
IFS	Functional shop conversion flag	1-2	I2

Card Type 4

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
NRLSHP	Number of real shops to convert to functional shops	1-2	I2

Card Type 5. This card is repeated NRLSHP times.

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
KRLSHP	Number of a particular real shop to be converted	1-3	I3
NF	Number of functional shops KRLSHP is being mapped into	4-6	I3
KFNSHP	Functional shop numbers being mapped into		I3
PERFS	Percent of real shop mapped into functional shop	7-66*	F3.2

*There will be NF pairs of these variables.

Card Type 6

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
IPUN	Punch option flag	1-2	I2

Card Type 7

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
ISSFL	SSI conversion flag	3-4	I2

Card Type 8. This card type is repeated for each COAR set.

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
COM	Comment in report headers	1-80	20A4

7.2.3.2 Unit 13 - Shipyard Shop Data File

Data on completed shipyard work are grouped into bookkeeping units called COAR's (Customer Order Acceptance Records). These data are obtained from each yard and stored on the disk. The file organization is shown in Figure 7.1-1.

The format for each record is as follows:

COAR Header Record

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
HEADER	COAR	1-5	I5
HEADER	Ship type	14-17	A4
HEADER	Hull number	18-21	I4
HEADER	Ship name	23-34	3A4
HEADER	Type availability	36-37	A2
HEADER	Start date	38-43	3I2
HEADER	Completion date	45-50	3I2
HEADER	Funds authorized	52-61	I10
*HEADER(17-19) or DATE(1-3)	Date of File	63-68	3A2
HEADER	Appropriation/subhead	70-82	3A4,A1
*HEADER(24-25) or YD(1-2)	Shipyard	85-90	A2,A4
HEADER	Sequence number	104-108	I5

*The file date and shipyard name are the only data items from this record which are specifically used by the program. The whole record is read with the variable name HEADER. Values for HEADER(17-19) are placed into the variable DATE(1-3) and for HEADER(24-25) into the variable YD(1-2).

Shop Data Record

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
COAR	COAR number	1-5	I5
SWBS	SWBS number	6-8	I3
JO	Information for job order number	9-10	A2
NSEG	Number of data segments for this record; maximum of three	12	I1
ISHOP	Shop number	14-103*	I2
MD	Mandays		I8
MAT	Material expenditures		I8
IDOL	Labor expenditures		I8,4X
NSEQ	Sequence number	104-108	I5

*Repeated NSEG times.

COAR Divider Record**

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
Not applicable	COAR number	1-5	I5
Not applicable	Record of all 9's	6-103	98I1
Not applicable	Sequence number	104-108	I5

End-of-Data Record**

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
Not applicable	Record of all 9's	1-108	108I1

**The COAR Divider Record and the End-of-Data Record are read with the same formats and variable names as the shop record. The program identifies a divider or end record by the presence of the 9's.

7.2.3.3 Unit 15 - SSI-to-SWBS Conversion File

This file sets up a mapping of SSI numbers to SWBS numbers. SSI, the Ship Systems Index of bookkeeping, is a modified version of the BUSHIPS Consolidated Index and was developed by Portsmouth Naval Shipyard for submarines. The correspondence of SSI and SWBS numbers is one-to-one except for SSI #860. In this case 31%, 35%, 18.5%, and 15.5% of the value in 860 are mapped into SWBS numbers 210, 830, 986, and 992, respectively. The format for this file is as follows:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
SSI	SSI number	1-3	I3
SWBS	SWBS number corresponding to SSI	10-12	I3

This format is repeated for each SSI.

7.2.3.4 Unit 19 - SWBS-to-DMPPM Conversion File

This file sets up a mapping between Ship Work Breakdown Structure (SWBS) numbers and Depot Maintenance Planning Module (DMPPM) numbers.

Record Type 1

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
NGRPS	Number of depot maintenance planning modules	1-2	I2

Record Type 2. This record is repeated NGRPS times.

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
IPM	DMPPM number	1-4	I4
KSWBS	Lower boundary for the range of SWBS numbers corresponding to IPM		I3
JSWBS	Upper boundary for the range of SWBS numbers corresponding to IPM	7-78	I3

7.2.4 OUTPUT

7.2.4.1 Hard-Copy Output

The following units are used by FDBK for generating hard copy:

Unit 12 - Illegal SWBS numbers

Unit 14 - COAR header records

Unit 16 - Material expenditures, total expenditures, mandays, and percent of manday total for each DMPM (DMPM Profile Report)

Unit 17 - Ratio of mandays of each shop to total mandays for each DMPM (Shop Ratio Report)

Unit 18 - Mandays per shop for each DMPM (Shop Manning Report)

Section 7.2.7 gives samples of these outputs.

Additionally, units 1-10 are used as scratch files to store intermediate calculations.

The program also provides card output. The formats of these cards are described in Section 7.2.4.2.

7.2.4.2 Card Output

The following card is optional and may be punched for each DMPM to produce planning module profiles.

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
IPM(ISG)	DMPM	1-4	I4
MDSUM(ISG)	Mandays	5-14	I10
PER	Percent of total	15-24	F10.4

The following cards are optional and may be punched for each DMPM to produce shop ratios.

Card Type 1

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
IPM(ISG)	DMPM	1-4	I4
PERSHP(1-10)	Shop ratio	5-44	10F4.3

Card Type 2

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
IPM(ISG)	DMPM	1-4	I4
PERSHP(11-20)	Shop ratio	5-44	10F4.3
MDSUM(ISG)	DMPM manday total	45-54	I10

7.2.5 PROGRAM LISTING

```

PROGRAM FDBK(INPUT,OUTPUT,TAPE1,TAPE2,TAPE3,TAPE4,TAPE5,TAPE6,
$ TAPE7,TAPE8,TAPE9,TAPE10,TAPE11=INPUT,TAPE12=OUTPUT,TAPE13,
$ TAPE14,TAPE15,TAPE16,TAPE17,TAPE18,TAPE19)          FDBK 10
C --- MICHAEL LAMATRICE DTNSRDC (1/76)                 FDBK 20
C --- THIS PROGRAM GENERATES A DMPM PROFILE REPORT OF MATERIAL S, FDBK 30
C --- LABOR S, MANDAYS, AND THE RATIO OF INDIVIDUAL DMPM MANDAYS TO FDBK 40
C --- TOTAL MANDAYS FOR SELECTED SETS OF COARS.           FDBK 50
C --- THE SHOP RATIO REPORT DISPLAYS THE PROPORTION OF EACH SHOP TO FDBK 60
C --- THE DMPM TOTAL.                                     FDBK 70
C --- PUNCHED CARDS MAY BE OBTAINED FROM THE SHOP RATIO REPORT TO FDBK 80
C --- BE USED AS INPUT TO LATER PROGRAMS.                  FDBK 90
C --- THE SHOP MANNING REPORT TABULATES THE NUMBER OF MANDAYS FOR FDBK 100
C --- EACH SHOP AND DMPM. REAL OR FUNCTIONAL SHOPS MAY BE OBTAINED. FDBK 110
C --- INPUT FILES                                         FDBK 120
C --- TAPE1-TAPE10 SCRATCH FILES FOR COAR SETS          FDBK 130
C --- TAPE11      CARD INPUT *                          FDBK 140
C --- TAPE13      SHOPS YARD DATA                      FDBK 150
C --- TAPE15      SSI-TO-SWBS CONVERSION               FDBK 160
C --- TAPE19      SWBS-TO-DMPM CONVERSION              FDBK 170
C
C --- * CARD INPUT
C --- CARD VARIABLE DEFINITION                         FORMAT   FDBK 180
C --- 1 NSETC NO. OF SETS OF COARS                   I2       FDBK 190
C --- 2 NCX NO. OF COARS IN THIS SET                 I2       FDBK 200
C --- KOARS COAR NUMBERS IN THIS SET                10I5     FDBK 210
C --- 3 IFS FUNCTIONAL SHOP FLAG                   I2       FDBK 220
C --- 4 KRLSHP NO. OF REAL SHOPS TO CONVERT        I2       FDBK 230
C ---             TO FUNCTIONAL SHOPS                 I2       FDBK 240
C --- 5 * KRLSHP NO. OF REAL SHOP TO BE CONVERTED  I3       FDBK 250
C --- NF NO. OF FUNCTIONAL SHOPS BEING MAPPED INTO I3       FDBK 260
C ---             KFNSHP FUNCTIONAL SHOP NOS.            FDBK 270
C --- PERFS PERCENT OF REAL SHOP MAPPED             FDBK 280
C ---             INTO FUNCTIONAL                   10(I3,F3.2) FDBK 290
C --- 6 IPUN PUNCH FLAG                            I2       FDBK 300
C --- 7 ISSFL SSI FLAG                            I2       FDBK 310
C --- 8 COM COMMENT IN REPORT HEADER              20A4     FDBK 320
C --- * REPEAT CARD 5 KRLSHP TIMES
C
C --- FLAGS SHOULD BE SET TO ZERO IF THE OPTION IS NOT DESIRED. FDBK 330
C --- OTHERWISE, IT IS SET TO ONE.                     FDBK 340
C --- IF IFS=0, CARDS 4 AND 5 SHOULD BE OMITTED       FDBK 350
C
C --- OUTPUT FILES
C --- TAPE1-TAPE10 SCRATCH FILES FOR COAR SETS          FDBK 360
C --- TAPE12      ILLEGAL SWBS                      FDBK 370
C --- TAPE14      COAR HEADER RECORDS               FDBK 380
C --- TAPE16      DMPM PROFILE REPORT              FDBK 390
C --- TAPE17      SHOP RATIO REPORT                FDBK 400
C --- TAPE18      SHOP MANNING REPORT              FDBK 410
C
COMMON /ONE/ ISW(1000),NSETC,NC(10),KOARS(10,10),MGRPS,IPM(100),
$ MPM(1000),IC,LOOP,NSHOP(20),IREP                           FDBK 420
COMMON/TWO/ MOTOT(20,100),MATSWB(100),IDLWB(100),MDSWB(100)
DATA NSHOP/1,6,11,17,23,26,31,36,38,41,51,56,64,
$ 65,67,71,72,81,94,99/                                      FDBK 430
FDBK 440
FDBK 450
FDBK 460
FDBK 470
FDBK 480
FDBK 490
FDBK 500
FDBK 510
FDBK 520
FDBK 530
FDBK 540
FDBK 550

```

CALL ERRSET(NER,99)	F0BK 560
C --- READ COAR SETS AND DMPHS	F0BK 570
CALL DATIN	F0BK 580
C --- INITIALIZE FLAGS, COUNTERS, AND ADDERS	F0BK 590
LOOP=8	F0BK 600
IREP=0	F0BK 610
3 DO 201 I=1,NGRPS	F0BK 620
DO 200 J=1,20	F0BK 630
200 MDTOT(J,I)=0	F0BK 640
MATSWB(I)=0	F0BK 650
IDLSWB(I)=0	F0BK 660
201 MDSWB(I)=0	F0BK 670
C --- ACCUMULATE INTERMEDIATE RESULTS	F0BK 680
CALL ACCUM	F0BK 690
IF(NSETG.EQ.99) CALL SCRATCH	F0BK 700
IF(IREP.EQ.1) GO TO 4	F0BK 710
C --- WRITE INTERMEDIATE RESULTS TO SCRATCH FILES	F0BK 720
CALL SCRATCH	F0BK 730
GO TO 3	F0BK 740
C --- WRITE REPORTS	F0BK 750
4 CALL REPORT	F0BK 760
STOP	F0BK 770
END	F0BK 780

```

SUBROUTINE ACCUM          FDBK 790
C --- THIS ROUTINE ACCUMULATES INTERMEDIATE RESULTS ON MANNING   FDBK 800
C --- AND EXPENDITURES   FDBK 810
COMMON /ONE/ ISW(1000),NSETC,NC(10),KOARS(10,10),NGRPS,IPN(100),   FDBK 820
S  HPM(1000),IC,LOOP,NSHOP(20),IREP   FDBK 830
COMMON /TWO/ MOTOT(20,100),MATSWB(100),IDL SWB(100),NDSWB(100)   FDBK 840
COMMON /THREE/ YD(2),DATE(3),IPUN   FDBK 850
COMMON /FOUR/ IFS,KFN SHP(20,10),PERFS(20,10),KRL SHP(20),NFS(20)   FDBK 860
S ,FACT,NRL SHP,L SHOP(20),NSEG,ISG   FDBK 870
COMMON /FIVE/ IDOL(3),ISHOP(3),MAT(3),MD(3)   FDBK 880
DIMENSION HEADER(30),FAC(4),IFAC(4)   FDBK 890
INTEGER SWBS,COAR   FDBK 900
DATA FAC/.31,.35,.185,.155/, IFAC/210,830,986,992/   FDBK 910
READ(13,5) HEADER   FDBK 920
5  FORMAT(15A4,4A2,4A4,A2,A4,A2,4A4)   FDBK 930
IF.EOF(13).NE.0) GO TO 300   FDBK 940
DATE(1)=HEADER(18)   FDBK 950
DATE(2)=HEADER(19)   FDBK 960
DATE(3)=HEADER(17)   FDBK 970
YD(1)=HEADER(24)   FDBK 980
YD(2)=HEADER(25)   FDBK 990
6  WRITE(14,5) HEADER   FDBK1000
IF( LOOP.NE.0) GO TO 8   FDBK1010
C --- WRITE SHIP INFO FROM FIRST COAR HEADER   FDBK1020
LOOP=1   FDBK1030
C --- READ SSI FLAG   FDBK1040
READ(11,7) ISSFL   FDBK1050
7  FORMAT(I1)   FDBK1060
C --- READ SHOPS DATA   FDBK1070
8  READ(13,10) COAR,SWBS,JO,NSEG,(ISHOP(J),MD(J),MAT(J),IDOL(J),J=1,   FDBK1080
S 3 ),NSEQ   FDBK1090
10  FORMAT(I5, I3,A2,1X,I1,1X,3(I2,3I8,4X),I5)   FDBK1100
IF.EOF(13).NE.0) GO TO 300   FDBK1110
C --- BRANCH FOR PROCESSING ALL COARS COMBINED   FDBK1120
IF(NSETC.NE.99) GO TO 15   FDBK1130
IF(MAT(1).NE.99999999) GO TO 60   FDBK1140
READ(13,5) HEADER   FDBK1150
IF.EOF(13).NE.0) GO TO 300   FDBK1160
WRITE(14,5) HEADER   FDBK1170
GO TO 8   FDBK1180
C --- COAR COMPLETED   FDBK1190
15  IF(MAT(1).EQ.99999999) RETURN   FDBK1200
C --- BYPASS COARS NOT SPECIFIED ON INPUT CARDS   FDBK1210
DO 50 IK=1,NSETC   FDBK1220
NCIK=NC(IK)   FDBK1230
DO 50 IJ=1,NCIK   FDBK1240
IF(COAR.NE.KOARS(IK,IJ)) GO TO 50   FDBK1250
GO TO 60   FDBK1260
50  CONTINUE   FDBK1270
GO TO 8   FDBK1280
60  CONTINUE   FDBK1290
C --- CHECK SWBS NUMBERS   FDBK1300
IF(ISSFL.NE.0) GO TO 12   FDBK1310
IF(HPM(SWBS).NE.0) GO TO 12   FDBK1320
WRITE(12,13) SWBS,COAR,JO,NSEG,(ISHOP(J),MD(J),MAT(J),IDOL(J),J=1,   FDBK1330
S 3 ),NSEQ   FDBK1340
13  FORMAT(* ILLEGAL SWBS*,I4,I6,A2,1X,I1,1X,3(I2,3I8,4X),I5)   FDBK1350
GO TO 8   FDBK1360
C --- CONVERT SSI TO SWBS   FDBK1370

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12    I860=0          FDBK1380
      FACT=1.          FDBK1390
      IF(ISSFL.NE.1) GO TO 80 FDBK1400
      IF(SWBS.NE.860) GO TO 75 FDBK1410
      I860=1          FDBK1420
70    FACT=FAC(I860)  FDBK1430
      SWBS=IFAC(I860)  FDBK1440
      GO TO 80          FDBK1450
75    IF(ISW(SWBS).NE.0) GO TO 76 FDBK1460
76    SWBS=ISW(SWBS)  FDBK1470
C - - - DETERMINE DMPM TO WHICH THIS SWBS BELONGS FDBK1480
80    ISG=MPN(SWBS)  FDBK1490
C - - - ADJUST REAL SHOP NUMBERS FDBK1500
     IF(IFS.NE.1) GO TO 24 FDBK1510
C - - - PROCESS FUNCTIONAL SHOPS FDBK1520
     CALL FSHOPS          FDBK1530
     GO TO 45          FDBK1540
24    DO 40 I=1,NSEG FDBK1550
     IF(ISHOP(I).NE.68) GO TO 25 FDBK1560
     LSHOP(I)=14          FDBK1570
     GO TO 35          FDBK1580
25    DO 30 J=1,20 FDBK1590
     IF(ISHOP(I).NE.NSHOP(J)) GO TO 30 FDBK1600
     LSHOP(I)=J          FDBK1610
     GO TO 35          FDBK1620
30    CONTINUE          FDBK1630
     LSHOP(I)=1          FDBK1640
C - - - ACCUMULATE SHOP SUBTOTALS FOR DMPS FDBK1650
35    IF( MD(I).LT.0) MD(I)=0 FDBK1660
     IF( MAT(I).LT.0) MAT(I)=0 FDBK1670
     IF(IDOL(I).LT.0) IDOL(I)=0 FDBK1680
     MDTOT(LSHOP(I),ISG)=MDTOT(LSHOP(I),ISG)+MD(I)*FACT FDBK1690
C - - - ACCUMULATE DMPM TOTALS FDBK1700
     MATSWB(ISG)=MATSWB(ISG)+MAT(I)*FACT FDBK1710
     IDLSWB(ISG)=IDLSWB(ISG)+IDOL(I)*FACT FDBK1720
     MDSWB(ISG)=MDSWB(ISG)+MD(I)*FACT FDBK1730
40    CONTINUE          FDBK1740
45    IC=COAR          FDBK1750
     IF(I860.EQ.0) GO TO 8 FDBK1760
     I860=I860+1          FDBK1770
     IF(I860.LT.4) GO TO 70 FDBK1780
     GO TO 8             FDBK1790
300   IREP=1           FDBK1800
      RETURN          FDBK1810
      END            FDBK1820

```

```

SUBROUTINE DATIN
C - - - THIS ROUTINE MAPS SST TO SWBS, READS SETS OF COARS TO BE      F0BK1830
      PROCESSED, AND MAPS SWBS TO DMPPNS                                F0BK1840
      COMMON /ONE/ ISW(1000),NSETC,NC(10),KOARS(10,10),NRPSS,IPM(100),   F0BK1850
      $ MPM(1000),IC,LOOP,NSHOP(20),IREP                                F0BK1860
      COMMON /TWO/ MOTOT(20,100),MATSWB(100),IDLSWB(100),MOSWA(100)    F0BK1870
      COMMON /THREE/ TD(2),DATE(3),IPUM                                F0BK1880
      COMMON /FOUR/IFS,KFNSHP(20,10),PERFS(20,10),KRLSHP(20),NFS(20)   F0BK1890
      $ ,FACT,WRLSHP,LSHOP(20),NSEG,ISG                                F0BK1900
      DIMENSION KSWBS(100,9),JSWBS(100,9)                                F0BK1910
C - - - READ SST-TO-SWBS MAPPING                                     F0BK1920
      DO 206 IS=1,1000
      READ(15,205) JSSI,ISW(JSSI)
205  FORMAT(I3,6X,I3)
      IF.EOF(15) 207,206
206  CONTINUE
C - - - READ COAR SETS                                              F0BK1930
207  READ(11,210)NSETC
      IF(NSETC.EQ.99) NC(1)=999
      IF(NSETC.EQ.99) GO TO 216
      DO 215 K=1,NSETC
      READ(11,210) NCK, (KOARS(K,J) ,J=1,NC(K))
210  FORMAT(I2,10(I5))
      NC(K)=NCK
215  CONTINUE
C - - - READ SWBS GROUPS FOR EACH DMPPN                            F0BK1940
216  READ(19,210) NRPSS
      DO 225 K=1,NRPSS
      READ(19,220) IPM(K),(KSWBS(K,J),JSWBS(K,J),J=1,9)           F0BK1950
220  FORMAT(I4,2X,18(I3,1X))
      DO 224 J=1,9
      KJ=KSWBS(K,J)
      IF(KJ.EQ.0) GO TO 225
      JJ=JSWBS(K,J)
      DO 223 NSWB=KJ,JJ
223  MPM(NSWB)=K
224  CONTINUE
225  CONTINUE
C - - - READ FUNCTIONAL SHOP CONVERSION                           F0BK1960
      READ(11,210) IFS
      IF(IF.S.EQ.1) GO TO 240
      READ(11,210) WRLSHP
      DO 230 IRS=1,WRLSHP
      READ(11,235)KRLSHP(IRS),WF,(KFNSHP(IRS,JFS),PERFS(IRS,JFS),JFS=1,NF          F0BK1970
      $ F)
235  FORMAT(2I3,10(I3,F3.2))
230  NFS(IRS)=NF
240  READ(11,210) IPUM
      RETURN
      END

```

```

SUBROUTINE FSHOPS
C -- THIS ROUTINE CONVERTS REAL SHOPS TO FUNCTIONAL SHOPS      FDRAK2330
COMMON /ONE/ ISH(1000),NSETC,NC(10),KOARS(10,10),NGRPS,IPM(100),    FDRAK2340
$ MPM(1000),IC,LOOP,NSHOP(20),IREP                                FDRAK2350
COMMON/TWO/ MOTOT(20,100),MATSWB(100),IDLWR(100),MDSWB(100)      FDRAK2360
COMMON/FOUR/IFS,KFNSHP(20,10),PERFS(20,10),KRLSHP(20),NFS(20)    FDRAK2370
$ ,FACT,NRLSHP,LSHOP(20),NSEG,ISG                                FDRAK2380
COMMON /FIVE/ IDOL(3),ISHOP(3),MAT(3),MD(3)                      FDRAK2390
C -- LOOP ON NUMBER OF DATA SEGMENTS IN THIS RECORD            FDRAK2400
DO 41 I=1,NSEG
IF(ISHOP(I).NE.68) GO TO 25
C -- PUT SHOP 68 DATA INTO SHOP 65                            FDRAK2410
LSHOP(I)=14
GO TO 31
C -- DETERMINE IF CURRENT SHOP CONTRIBUTES TO OTHER SHOPS     FDRAK2420
25 DO 30 J=1,20
IF(ISHOP(I).NE.NSHOP(J)) GO TO 31
30 CONTINUE
31 DO 33 IRS=1,NRLSHP
IF(ISHOP(I).EQ.KRLSHP(IR$)) GO TO 35
33 CONTINUE
C -- THIS SHOP MAPS 100 PER CENT ONTO ITSELF                  FDRAK2430
MOTOT(KFNSHP(IRS,JFS),ISG)=MOTOT(KFNSHP(IRS,JFS),ISG)+MD(I)*FACT
GO TO 39
35 NF=NFS(IRS)
C -- LOOP ON NUMBER OF SHOPS BEING MAPPED INTO                FDRAK2440
DO 40 JFS=1,NF
40 MOTOT(KFNSHP(IRS,JFS),ISG)=MOTOT(KFNSHP(IRS,JFS),ISG)+MD(I)*FACT
$ *PERFS(IRS,JFS)
39 MATSWB(ISG)=MATSWB(ISG)+MAT(I)*FACT
IDLWR(ISG)=IDLWR(ISG)+IDOL(I)*FACT
MDSWB(ISG)=MDSWB(ISG)+MD(I)*FACT
41 CONTINUE
RETURN
END

```

```

SUBROUTINE REPORT          F0RK2680
C - - - THIS ROUTINE WRITES THREE TYPES OF REPORTS FOR EACH      F0RK2690
C - - - SELECTED SET OF COARS      F0RK2700
COMMON /ONE/ ISM(1000),NSETC,NC(10),KOARS(10,10),NGPMS,IPHC(100),      F0RK2710
$ MPH(1000),IG,LOOP,NSHOP(20),IREP      F0RK2720
COMMON/TWO/ MOTOT(20,100),MATSNB(100),IDLSNB(100),MDSNB(100)      F0RK2730
COMMON /THREE/ YD(2),DATE(3),IPUN      F0RK2740
DIMENSION YARD(8),COM(20),      F0RK2750
$ MATSUM(100),IDLSUM(100),MDSUM(100),MDSHP(20,100),PERSHP(20)      F0RK2760
DATA YARD/2HCH,2HLB,2HMA,2HNO,2HPE,2HPH,2HPT,2HPU/      F0RK2770
C - - - SUM SHOPS FOR EACH SNBS GROUP      F0RK2780
C - - - COMPUTE PERCENTS AND TOTALS      F0RK2790
C - - - DETERMINE YARD FROM WHICH DATA WAS EXTRACTED      F0RK2800
DO 10 I=1,9      F0RK2810
IV=I      F0RK2820
IF(YD(I).EQ.YARD(I)) GO TO 20      F0RK2830
10 CONTINUE      F0RK2840
20 IVDNO=IV      F0RK2850
300 DO 360 IFL=1,NSETC      F0RK2860
REWIND IFL      F0RK2870
NCF=NC(IFL)      F0RK2880
IF(NCF.EQ.0) GO TO 360      F0RK2890
C - - - INITIALIZE ADDERS      F0RK2900
NMAT=0      F0RK2910
NODL=0      F0RK2920
NMD=0      F0RK2930
DO 361 ISG=1,100      F0RK2940
DO 362 LSH=1,20      F0RK2950
362 MDSP(1,LSH,ISG)=0      F0RK2960
MATSUM(ISG)=0      F0RK2970
IDLSUM(ISG)=0      F0RK2980
361 MDSUM(ISG)=0      F0RK2990
DO 30 J=16,18      F0RK3000
NREP=J-15      F0RK3010
C - - - WRITE REPORT HEADINGS      F0RK3020
WRITE(J,35) IVDNO,NRFP,DATE,YD      F0RK3030
35 FORMAT(*1 REPORT 63-0*,I1,"-",I1/
$ "X,*DATE*",A2,21"/",A2), 5X,*YARD*",A2,84,/)      F0RK3040
      F0RK3050
30 CONTINUE      F0RK3060
READ(11,5) COM      F0RK3070
5 FORMAT(20A4)      F0RK3080
DO 60 J=16,18      F0RK3090
WRITE(J,55) COM      F0RK3100
55 FORMAT( 2X,20A4,//)      F0RK3110
60 CONTINUE      F0RK3120
WRITE(16,40)      F0RK3130
40 FORMAT(40X,*DMPM PROFILE REPORT*,/,40X,19(1H-),//)      F0RK3140
WRITE(17,45)      F0RK3150
45 FORMAT(40X,*SHOP RATIO REPORT*,15X,
$ *(SHOP ENTRIES ARE MANNING RATIOS AND THEIR SUM = 1 FOR EACH DMPM)*F0RK3170
$ MPH*,/,40X,17(1H-),//)      F0RK3180
WRITE(18,50)      F0RK3190
50 FORMAT(40X,*SHOP MANNING REPORT*,15X,*SHOP ENTRIES ARE MAN DAYS*)F0RK3200
$ ,/,40X,19(1H-),//)
WRITE(16,305) (KOARS(TFL,J),J=1,10)      F0RK3210
305 FORMAT(* COARS *, 10T6 //* DMPM*,10X,* MATERIAL *,
$ 6X,* LABOR * ,13X,* MAN DAYS*,10X,
$ * DMPM M.D./TOTAL M.D.* ,/)      F0RK3220
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      F0RK100361
      F0RK100362
      F0RK100363
      F0RK100364
      F0RK100365
      F0RK100366
      F0RK100367
      F0RK100368
      F0RK100369
```

```

335  FORMAT(* COARS *, 10I6    /* DMPM\SHOP*,3X,20I5,* TOT MD*,/)   FDBK3270
      WRITE(18,336) (KOAPS(IFL,J), J=1,10),NSHOP   FDBK3280
336  FORMAT(* COARS *, 10I6    /* DMPM\SHOP*, 20I6,* TOT MD*,/)   FDBK3290
      DO 350 IJ=1,NCF   FDBK3300
C -- - READ INTERMEDIATE RESULTS FROM SCRATCH FILES   FDBK3310
      READ(IFL,110)((MDTOT(L1,L2),L1=1,20),L2=1,100),MATSH9,IDLSWB,MDSWBFDBK3320
110  FORMAT(10I6)   FDBK3330
      IF(EOF(IFL).NE.0) GO TO 355   FDBK3340
C -- - COMPUTE TOTALS FOR SHOPS AND DMPMS   FDBK3350
      DO 310 ISG=1,NGRPS   FDBK3360
      DO 309 LSH=1,20   FDBK3370
309  MDOSH(LSH,ISG)=MDOSH(LSH,ISG)+MDTOT(LSH,ISG)   FDBK3380
      MATSUM(ISG)=MATSUM(ISG)+MATSWB(ISG)   FDBK3390
      IDLSUM(ISG)=IDLSUM(ISG)+IDLWB(ISG)   FDBK3400
310  MDSUM(ISG)=MDSUM(ISG)+MDSWB(ISG)   FDBK3410
350  CONTINUE   FDBK3420
C -- - COMPUTE TOTALS FOR SELECTED COAR SETS   FDBK3430
355  DO 311 ISG=1,NGRPS   FDBK3440
      NMAT=NMAT+MATSUM(ISG)   FDBK3450
      NOOL=NOOL+IDLSUM(ISG)   FDBK3460
311  NMD=NMD+MDSUM(ISG)   FDBK3470
      DO 330 ISG=1,NGRPS   FDBK3480
C -- - COMPUTE MANNING RATIOS FOR DMPMS   FDBK3490
      PER=FLOAT(MDSUM(ISG))/FLOAT(NMD)   FDBK3500
      IF(IPM(ISG).NE.5001) GO TO 315   FDBK3510
      WRITE(16,312)   FDBK3520
312  FORMAT(1H1)   FDBK3530
      WRITE(16,314)   FDBK3540
314  FORMAT(           /* DMPM*,10X,* MATERIAL $*,  

$ 6X,* LABOR $*,13X,* MAN DAYS*,10X,  

$ * DMPM H.D./TOTAL H.D.*,)   FDBK3550
315  CONTINUE   FDBK3560
      WRITE(16,320) IPM(ISG),MATSUM(ISG),IDLSUM(ISG),MDSUM(ISG),PER   FDBK3570
320  FORMAT(15,18X,I8,10X,I7,10X,I10,10X,F17.3)   FDBK3580
      IF(IPUN.NE.1) GO TO 330   FDBK3590
      PUNCH 325, IPM(ISG),MDSUM(ISG),PER   FDBK3600
325  FORMAT(I4,I10,F10.4)   FDBK3610
330  CONTINUE   FDBK3620
      WRITE(16,331) NMAT,NOOL,NMD   FDBK3630
331  FORMAT(* TOTAL*,7X,I10,7X,I10,10X,I10)   FDBK3640
      DO 345 ISG=1,NGRPS   FDBK3650
      DO 338 LSH=1,20   FDBK3660
      IF(MDSUM(ISG).NE.0) GO TO 337   FDBK3670
      PERSHP(LSH)=0   FDBK3680
      GO TO 338   FDBK3690
C -- - COMPUTE SHOP MANNING RATIOS FOR DMPMS   FDBK3700
337  PERSHP(LSH)=FLOAT(MDOSH(LSH,ISG))/FLOAT(MDSUM(ISG))   FDBK3710
338  CONTINUE   FDBK3720
      IF(IPM(ISG).NE.5001) GO TO 339   FDBK3730
      WRITE(17,312)   FDBK3740
      WRITE(17,329) NSHOP   FDBK3750
329  FORMAT(           /* DMPM\SHOP*,3X,20I5,* TOT MD*,/)   FDBK3760
      WRITE(18,312)   FDBK3770
      WRITE(18,343) NSHOP   FDBK3780
343  FORMAT(           /* DMPM\SHOP*, 20I6,* TOT MD*,/)   FDBK3790
339  CONTINUE   FDBK3800
      WRITE(17,340) IPM(ISG),PERSHP,MDSUM(ISG)   FDBK3810
340  FORMAT(I5,8X,20(1X,F4.3),I7)   FDBK3820
      WRITE(18,341) IPM(ISG),(MDOSH(LSH,ISG),LSH=1,20),MDSUM(ISG)   FDBK3830
      FORMAT(I5,5X,20I6,I7)   FDBK3840
341

```

IF(IPUN.NE.1) GO TO 345	F09K3870
PUNCH 342,IPM(ISG),(PERSHP(M),M=1,10),IPM(ISG),(PERSHP(M),M=11,20)	F0BK3880
,MDSUM(ISG)	F0BK3890
342 FORMAT(I4,10F4.3/I4,10F4.3,I10)	F0BK3900
345 CONTINUE	F0BK3910
IF(NSETC.EQ.99) RETURN	F0BK3920
360 CONTINUE	F0BK3930
RETURN	F0BK3940
END	F0BK3950

SUBROUTINE SCRATCH	F09K3960
C - - - THIS ROUTINE WRITES INTERMEDIATE RESULTS ON APPROPRIATE	F0BK3970
SCRATCH FILES	F0BK3980
COMMON /ONE/ ISH(1000),NSETC,NC(10),KOARS(10,10),NGRPS,IPM(100),	F0BK3990
\$ MPM(1000),IC,LOOP,NSHOP(20),IREP	F0BK4000
COMMON/TWO/ MDTOT(20,100),TSWR(100),IDLSWB(100),MDSWB(100)	F0BK4010
IF(NSETC.NE.99) GO TO 100	F0BK4020
WRITE(1,110)((MDTOT(L1,L2),L1=1,20),L2=1,100),MATSWB,IDLWB,MDSWB	F0BK4030
RETURN	F0BK4040
C - - - DETERMINE SETS TO WHICH THIS COAP BELONGS	F0BK4050
100 DO 150 IK=1,NSFTC	F0BK4060
NCIK=NC(IK)	F0BK4070
DO 140 IJ=1,NCIK	F0BK4080
IF(IC .NE. KOARS(IK,IJ)) GO TO 140	F0BK4090
C - - - WRITE SCRATCH FILES FOR STORING COAP SETS	F0BK4100
110 FORMAT(10I8)	F0BK4110
GO TO 150	F0BK4120
140 CONTINUE	F0BK4130
150 CONTINUE	F0BK4140
RETURN	F0BK4150
END	F0BK4160
	F0BK4170

7.2.6 GLOSSARY

COMMON VARIABLES

Common Block /ONE/

IC	Integer form of COAR number.
IMP(100)	Depot Maintenance Planning Module number.
IREP	Flag set to "1" after the program writes the first report, otherwise it is "0".
ISW(100)	SWBS array corresponding to SSI.
KOARS(10,10)	Array of COAR numbers within a set.
LOOP	Flag denoting first COAR for a ship.
MPM(1000)	Array of DMPM's corresponding to the SWBS numbers.
NC(10)	Array of the number of COAR's in a set.
NGRPS	Number of DMPM's.
NSETC	Number of sets of COAR's.
NSHOP(20)	Array of shop numbers.

Common Block /TWO/

IDLSWB(100)	Array of labor expenditures for each DMPM.
MATSWB(100)	Array of material expenditures for each DMPM.
MDSWB(100)	Array of mandays for each DMPM.
MDTOT(20,100)	Array of mandays for each shop and each DMPM.

Common Block /THREE/

DATE(3)	Date of data tabulation.
IPUN	Punch flag option.
YD(2)	Shipyard name abbreviation from data file.

Common Block /FOUR/

FACT	Percentage that SSI number 860 maps into corresponding SWBS.
IFS	Functional shop conversion flag.
ISG	Index for the number of DMPPM's.
KFNSHP(20,10)	Array of functional shop numbers being mapped into.
KRLSHP(20)	Number of a particular real shop to be converted.
LSHOP(20)	Array of indirectly addressed shop numbers.
NFS(20)	Array of the number of functional shops KRLSHP is being mapped into.
NRLSHP	Number of real shops to be converted to functional shops.
NSEG	Number of data segments per input record.
PERFS(20,10)	Array of percent of real shops mapped into functional shops.

Common Block /FIVE/

IDOL(3)	Array of labor expenditures for a particular shop, SWBS, and COAR.
ISHOP(3)	Array of shop numbers.
MAT(3)	Array of material expenditures for a particular shop, SWBS, and COAR.
MD(3)	Array of mandays for a particular shop, SWBS, and COAR.

LOCAL VARIABLES

Main Program

I Index for the planning modules.
J Index for shops.

Subroutine DATIN

IRS Index for NRLSHP.
IS Index for the number of SSI values.
J Index used for I/O statements.
JFS Index used for I/O statements.
JJ Upper limit of a COAR range.
JSSI SSI array.
JSWBS(100,9) Upper limit of a COAR range.
K Index used for I/O statements.
KJ Lower limit of a COAR range.
KSWBS(100,9) Lower limit of a COAR range.
LOOP Flag denoting the first COAR for a ship.
NCK Number of COAR's in a set.
NF Number of functional shops KRLSHP is being mapped into.
NSWB Number of SWBS's per SWBS range.

Subroutine SCRICH

IJ Index for the number of COAR's of a set.
IK Index for the number of sets of COAR's.
L1 Index used for I/O statements.
L2 Index used for I/O statements.
NCIK Number of COAR's in a set.

Subroutine ACCUM

COAR	COAR
FAC(4)	Percentage that SSI number 860 maps into corresponding SWBS.
HEADER(30)	COAR header record.
I	Index for the number of segments on a particular data record.
IFAC(4)	SWBS numbers mapped into from SSI number 860.
IJ	Index for the number of COAR's of a set.
IK	Index for the number of sets of COAR's.
ISSFL	Flag denoting SSI numbers being used.
I860	Index for FAC and IFAC.
J	Index for shops; index used for I/O statements.
NCIK	Number of COAR's in a scratch file.
GNIX	Ynput record sequence number.
SWBS	SWBS number.

Subroutine REPORT

COM(20)	Comment in report headers.
I	Index for the shipyards.
IDLSUM(100)	Labor expenditures for each DMPPM over a set of COAR's.
IJ	Index for NCF
ISG	Index for the number of DMPPM's.
IY	Index for the shipyards.
IYDNO	Coded yard number.
J	Index used for I/O statements.
LSH	Index for the number of shops.
L1	Index used for I/O statements.
L2	Index used for I/O statements.
MATSUM(100)	Material expenditures for each DMPPM over a set of COAR's.

Subroutine REPORT (Continued)

MDSHP(20,100)	Mandays for each shop of each DMPM over a set of COAR's.
MDSUM(100)	Mandays for each DMPM over a set of COAR's.
NCF	Number of COAR's in a scratch file.
NDOL	Labor expenditures for a set of COAR's.
NMAT	Material expenditures for a set of COAR's.
NMD	Mandays for a set of COAR's.
NREP	Output report numbers.
PER	Ratio of mandays of each DMPM to total for each COAR.
PERSHP(20)	Ratio of mandays of each shop to total for each DMPM and COAR set.
YARD(8)	Shipyard name abbreviation.

Subroutine FSHOPS

I	Index for the number of segments for a particular data record.
IRS	Index for NRLSHP.
J	Index for the shops.
JFS	Index for NF.
NF	Number of functional shops KRLSHP is being mapped into.

7.2.7 SAMPLE RUN

The CV 59 overhaul was selected for analysis in the sample run. The data consist of the repair COAR 16851, the ship alteration COAR 30851, and the ordinance alteration COAR 49851. The run was made with the alteration COAR's grouped together. The input card set-up and portions of the other input files are shown in this section. Output reports are also given.

Unit 11 - Card Input

```
3
116851
23085149851
3168513085149851
0
0
0
CV 59 --- REPAIRS --- REAL SHOPS
CV 59 --- ALTERATIONS --- REAL SHOPS
CV 59 --- REPAIRS AND ALTS --- REAL SHOPS
```

Unit 15 (Input) - SSI-to-SWBS Conversion File

002	830	844	856	986		
018	833					
013	853					
014	841					
018	986					
019	841					
020	982					
021	982					
022	986					
028	986	211N				
037	844					
040	992	980	211N			
042	994					
043	997					
053	990					
080	845					
083	851	211N				
087	980	841	990	986N		
090	982					
091	980					
111	151					
131	111					
132	112					
156	191					
170	167					
176	125					
177	122	512N	192N	529N		
178	141					
201	231	241	242	239	244	254
203	243					
204	251					
206	252					
207	253					
208	255					
209	256					
211	262					
229	534					
230	534					
231	221					
232	534					
233	255					
235	263					
236	341					
237	264					
246	238					
248	223					
300	311					
302	324					
303	331					
307	314					
308	324					
309	324					
310	324					
311	324					
404	471					

405	483	603	623
407	483	605	631
408	451	606	634
415	425	607	635
416	426	608	672
418	423	609	665
420	420	611	651
421	420	612	640
424	455	708	751
425	462	709	752
426	461	714	595
427	424	716	436
428	442	717	754
429	462	719	726
430	460	721	727
432	427	722	722
435	436	723	721
436	441	724	724
437	437	725	725
438	432	729	727
439	431	730	721
440	441	732	728
441	441	733	721
442	441	734	721
443	445	741	721
444	459	742	721
446	441	743	721
501	512	825	213
502	514	826	214 215
503	516	827	215
505	528	828	215
508	564	829	215
509	533	830	215
513	551	831	215
515	563	832	215
517	531	833	215
518	561	835	216
520	582	836	216
529	554	837	216
530	551	838	215
532	515	840	212
533	515	841	212
534	594	843	217
538	563	844	217
539	529	846	217
540	551	847	217
541	551	848	217
542	532	853	218 217
543	551	855	219
546	531	860	210 631 800 810 830 986 992 994
552	556		
553	556		
558	536		
559	532		
561	524		
562	529		
553	541		
564	563		
567	342		
558	593		

Unit 19 (Input) - SWBS-to-DMPPM Conversion File

79
1001 100-100 110-124 130-160 164-164 166-166 192-192
1002 125-126
1003 161-161 191-191
1004 162-162
1005 163-163
1006 165-165
1007 167-169
1008 170-179
1009 180-187
2001 200-209 250-250
2002 210-219
2003 221-221 259-259
2004 222-222 234-234
2005 231-233
2006 235-239 223-224
2007 241-246
2008 247-247
2009 251-251
2010 252-252
2011 253-253 258-258
2012 254-256
2013 261-264 290-290
3001 310-312
3002 313-314 320-324 330-332
3003 341-343 390-390
3004 300-309
4001 411-412 493-493
4002 413-417
4003 422-424 426-427 494-494
4004 421-421 425-425
4005 430-446 495-495
4006 450-453 455-455 459-459
4007 454-454 492-492
4008 460-465
4009 470-476
4010 480-489
4011 490-499 490-491
5001 511-511 517-517
5002 512-513
5003 515-515
5004 514-514 516-516
5005 520-558 598-598
5006 562-562
5007 560-561 563-568
5008 570-573 581-585 589-589
5009 586-586
5010 587-587
5011 588-588
5012 591-592 594-597
5013 593-593
5014 500-509
6001 611-613 632-632
6002 631-631
6003 634-639

6004 644-644 656-656
6005 655-655
6006 641-643 645-645 650-654 661-664
6007 660-660 665-665
6008 670-673 690-690 698-699
6009 688-618 640-640
6010 629-625
6011 633-633
7001 710-711 720-721
7002 712-713 722-723 772-773 780-780 782-783 790-790 792-792 797-799
7003 724-728
7004 730-733 740-743
7005 750-754
7006 760-763
7007 700-709
8001 810-813 896-897 802-802
8002 820-820 830-839
8003 840-845
8004 850-859 890-890 892-895
8005 891-891
9001 982-982
9002 980-981 983-989
9003 990-994
9004 995-995
9005 997-997

Unit 12 (Output) - Illegal SWBS Numbers

Unit 14 (Output) - COAR Header Records

16231000	CV	59 FORRESTAL	P0076275	077227	0001157624	770813	1771604	602A000NORFOL	00001
16851000	CV	59 FORRESTAL	P0076275	077161	0044605897	770813	1771604	602A00N02FOL	00006
30851000	CV	59 FORRESTAL	P0076275	077181	0021738735	770813	1771604	242160NORFOL	01362
49851000	CV	59 FORRESTAL	P0076275	077181	0003053160	770810	1771804	197270NORFOL	01489
25038000	CVN	68 NIMITZ	PA076061	077161	00003265C0	770826	1771604	602A20NORFOL	00001
25048000	CVN	68 NIMITZ NON	PA077069	077192	0005427259	770826	1771604	602A60NORFOL	00003
26048000	CVN	68 NIMITZ NUC	PA077069	077192	0000898830	770826	1771604	602A20NORFOL	00355
30048000	CVN	68 NIMITZ NON	FA077369	077192	00009655738	770826	1771604	242130NORFOL	00391
32048000	CVN	68 NIMITZ NUC	RA077369	077192	00014888605	770826	1771604	242180NORFOL	00531
49048000	CVN	68 NIMITZ NON	RA077069	077192	0000098000	770826	1771604	197290NORFOL	00584
25186000	SSN	664 DEVILMON	PA077153	077213	0002803485	770831	1771604	602A00NORFOL	00001
26186700	SSN	664 DEVILNUC	PA077153	077213	0000152024	770831	1771604	602A30NORFOL	00232
30186000	SSN	664 DEVILNON	PA077153	077213	0000191521	770831	1771604	242100NORFOL	00253
25186700	SSN	664 DEVILNON	PA077153	077213	0002803485	770923	1771604	602A50NORFOL	00001
25264000	LKA	113 CHARLESTON	RA077147	077224	0000250006	770923	1771604	602A30NORFOL	00232
26186700	SSN	664 DEVILNUC	RA077153	077213	0000162024	770923	1771604	602A60NORFOL	00238
30186700	SSN	664 DEVILNON	RA077153	077213	0000191521	770923	1771604	242130NORFOL	00259
25291000	FF	1091 MILLER	RA077206	077238	0000275000	770926	1771604	602A10NORFOL	60001
30269000	SSN	675 BLUEFISH	RA077199	077234	0000078200	770926	17X4912	379000NORFOL	00010

Unit 16 (Output) - DMPM Profile Report

REPORT: 63-84-1
DATE: 09/28/77 YARD: NORFOLK

CY 59 --- ALTERATIONS ---- REAL SHOPS

DMPM PROFILE REPORT

COARS	38851 49851	0	0	0	0	0	0	0	0	DMPM N.D./TOTAL N.D.
DMPM	MATERIAL \$	LABOR \$	MAN DAYS							
1881	0	143					1			.000
1882	0	0					0			.000
1883	0	0					0			.000
1884	0	0					0			.000
1885	0	0					0			.000
1886	0	0					0			.000
1887	0	0					0			.000
1888	0	0					0			.000
1889	0	0					0			.000
2881	0	0					0			.000
2882	0	0					0			.000
2883	0	0					0			.000
2884	0	0					0			.000
2885	0	0					0			.000
2886	0	0					0			.000
2887	4	343					2			.000
2888	0	0					0			.000
2889	0	0					0			.000
2810	0	0					0			.000
2811	0	0					0			.000
2812	0	0					0			.000
2813	0	0					0			.000
3861	0	0					0			.000
3862	0	0					0			.000
3863	0	0					0			.000
3864	0	0					0			.000
4801	0	0					0			.000
4882	915	9386					57			.001
4883	925	17921					119			.001
4884	0	0					0			.000
4885	35816	189460					1745			.009
4886	320476	1685923					9346			.083
4887	0	615					4			.000
4888	0	0					0			.000
4889	0	0					0			.000
4810	0	0					0			.000
4811	184875	1197309					6994			.062
5801	0	0					0			.000
5802	0	0					0			.000
5803	0	0					0			.000
5804	267599	1051083					5347			.047
5805	277225	2224441					13165			.116
5806	0	0					0			.000
5807	0	0					0			.000
5808	0	0					0			.000
5809	145654	936385					5665			.048
5810	293272	2099437					12894			.107
5811	0	0					0			.000
5812	0	0					0			.000
5813	127534	1058734					6129			.054
5814	0	0					0			.000
6801	0	0					0			.000
6802	0	0					0			.000
6803	0	0					0			.000
6804	16	1098					7			.000
6805	0	0					0			.000
6806	0	0					0			.000
6807	0	0					0			.000
6808	0	0					0			.000
6809	532153	2726881					14977			.132
6810	0	0					0			.000
6811	0	0					0			.000
7801	0	0					0			.000
7802	810841	6330484					36348			.321
7803	0	0					0			.000
7804	0	0					0			.000
7805	0	0					0			.000
7806	0	0					0			.000
7807	0	0					0			.000
8801	1071	306929					1948			.017
8802	0	0					0			.000
8803	0	0					0			.000
8804	0	0					0			.000
8805	0	0					0			.000
9801	0	0					0			.000
9802	0	6646					45			.000
9803	0	0					0			.000
9804	0	0					0			.000
9805	0	0					0			.000
TOTAL	2998376	19837121					113891			

REPORT #: 63-04-1
DATE: 09/26/77 VARDI NORFOLK

CV 99 --- REPAIRS --- REAL SHOPT

ONPM PROFILE REPORT

REPORT# 63-04-1
DATE# 09/28/77 YARD# NORFOL

CV 59 --- REPAIRS AND ALTS --- REAL SHOPS

DMPM PROFILE REPORT

COARS	16851	30851	49851	0	0	3	0	0	0	MAN DAYS	DMPM M.D./TOTAL M.D.
DMPM				MATERIAL \$	LABOR \$						
1801		50023		1226493		7723				.023	
1802		0		0		0				0.000	
1803		91		1150		7				.000	
1804		0		0		0				0.000	
1805		107323		2101679		12398				.037	
1806		0		0		0				0.000	
1807		17568		144297		876				.003	
1808		3265		98846		645				.002	
1809		4340		101497		656				.002	
2001		127162		780745		4639				.013	
2002		0		0		0				0.000	
2003		513339		3295038		18180				.054	
2004		0		0		0				0.000	
2005		47614		325262		1899				.006	
2006		0		0		0				0.000	
2007		114143		842929		4864				.014	
2008		0		0		0				0.000	
2009		68666		523221		3032				.009	
2010		0		0		0				0.000	
2011		149984		813131		4319				.013	
2012		341753		1226758		5528				.018	
2013		131596		849627		4858				.014	
3001		193986		710176		3464				.010	
3002		193187		706689		3837				.011	
3003		746		70483		478				.001	
3004		0		0		0				0.000	
4001		3442		46401		298				.001	
4002		926		9397		57				.000	
4003		110108		881382		5082				.015	
4004		0		0		0				0.000	
4005		125905		677265		3802				.011	
4006		374451		2041925		11364				.034	
4007		115015		55069		2909				.009	
4008		0		0		0				0.000	
4009		22146		110425		646				.002	
4010		11025		106973		685				.002	
4811		187201		1272393		7428				.022	
5001		43392		143338		737				.002	
5002		36661		557455		3849				.011	
5003		0		0		0				0.000	
5004		582803		1904492		9188				.027	
5005		1389226		8813790		50887				.150	
5006		2689		66767		283				.001	
5007		31851		176182		1801				.003	
5008		127590		744153		4259				.013	
5009		177478		1069915		6223				.019	
5010		551236		4378299		25516				.076	
5011		337872		1850332		10478				.031	
5012		0		0		0				0.000	
5013		127534		1050736		6129				.018	
5014		123907		955483		5489				.016	
6001		10436		148388		929				.003	
6002		193265		1042725		5017				.017	
6003		3450		45692		273				.001	
6004		6654		10584		27				.000	
6005		0		0		0				0.000	
6006		337521		1736248		9675				.029	
6007		27820		27820		0				0.000	
6008		0		0		0				0.000	
6009		533275		2720585		14981				.045	
6010		15045		208681		1294				.006	
6011		0		0		0				0.000	
7001		20889		206025		1205				.006	
7002		969753		7371870		42568				.127	
7003		0		0		0				0.000	
7004		0		0		0				0.000	
7005		0		0		0				0.000	
7006		0		0		0				0.000	
7007		0		0		0				0.000	
8001		1080		339339		2130				.006	
8002		149		4020		27				.000	
8003		0		0		0				0.000	
8004		0		0		0				0.000	
8005		0		0		0				0.000	
9001		16119		36417		2199				.007	
9002		22303		578201		3790				.011	
9003		50475		2693573		1794				.052	
9004		0		0		0				0.000	
9005		679		140685		1026				.003	
TOTAL		8838859		58851714		336276					

Unit 17 (Output) - Shop Ratio Report

REPORT #: 63-04-2
DATE: 09/26/77 YARD: NORFOLK
CV 59 --- REPAIRS --- REAL SHOPS

SHOP RATIO REPORT

SHOP

(SHOP ENTRIES ARE HAVING RATIOS AND THEIR SUM = 1 FOR EACH DMPH)

DMPM\SHOP	1	6	11	17	23	26	31	36	38	41	51	56	64	65	67	71	72	81	94	99	TOT MD
5001	.011	.000	.030	.115	.000	.037	.000	.000	.000	.000	.000	.000	.000	.000	.043	.000	.000	.020	.099	.000	.000
5002	.018	.000	.041	.281	.000	.056	.019	.000	.065	.001	.352	.056	.017	.000	.000	.000	.000	.041	.052	.000	.001
5003	.000	.000	.000	.000	.024	.029	.000	.063	.215	.000	.052	.021	.070	.392	.025	.000	.001	.026	.091	.000	.000
5004	.035	.000	.033	.001	.036	.013	.000	.063	.030	.033	.000	.000	.001	.106	.593	.009	.000	.012	.120	.000	.000
5005	.035	.000	.035	.001	.036	.013	.000	.063	.030	.033	.000	.000	.001	.106	.593	.009	.000	.012	.120	.000	.000
5006	.035	.000	.035	.000	.035	.013	.000	.063	.030	.033	.000	.000	.001	.106	.593	.009	.000	.012	.120	.000	.000
5007	.035	.000	.035	.001	.036	.013	.000	.063	.030	.033	.000	.000	.001	.106	.593	.009	.000	.012	.120	.000	.000
5008	.034	.000	.034	.000	.035	.015	.000	.066	.030	.034	.000	.000	.001	.123	.392	.015	.000	.009	.043	.000	.000
5009	.005	.000	.029	.011	.000	.029	.011	.000	.074	.090	.000	.000	.000	.262	.004	.174	.033	.030	.000	.000	.000
5010	.047	.003	.098	.013	.000	.134	.039	.000	.134	.039	.000	.000	.000	.400	.266	.029	.000	.008	.016	.070	.000
5011	.035	.000	.080	.017	.003	.071	.159	.000	.259	.004	.081	.068	.050	.000	.000	.000	.000	.031	.162	.000	.002
5012	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
5013	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
5014	.026	.000	.000	.007	.006	.000	.042	.737	.000	.097	.000	.000	.000	.067	.001	.000	.000	.016	.001	.000	.000
6001	.051	.000	.041	.001	.000	.169	.009	.000	.005	.000	.000	.000	.000	.000	.023	.000	.000	.018	.245	.000	.000
6002	.064	.000	.107	.000	.000	.072	.000	.000	.000	.000	.000	.000	.039	.027	.000	.000	.000	.530	.151	.000	.000
6003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	5817
6004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	273
6005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
6006	.049	.000	.056	.341	.000	.130	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	9675
6007	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
6008	*000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
6009	***	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	4
6010	.018	.000	.152	.056	.000	.227	.025	.000	.005	.409	.002	.007	.019	.000	.000	.000	.000	.038	.043	.000	.000
6011	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	1294
7001	.264	.000	.001	.000	.000	.027	.000	.000	.163	.000	.061	.015	.005	.000	.402	.039	.023	.000	.000	.000	1205
7002	.037	.000	.067	.040	.000	.031	.078	.000	.290	.012	.203	.049	.043	.000	.000	.000	.000	.017	.134	.000	.000
7003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	6220
7004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
7005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
7006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
7007	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
8001	***	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	162
8002	*003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	27
8003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
8004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
8005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
9001	.093	.000	.019	.022	.000	.015	.033	.000	.265	.035	.225	.165	.001	.000	.106	.002	.026	.000	.000	.000	2199
9002	.014	.002	.009	.018	.003	.021	.003	.000	.191	.104	.199	.284	.017	.000	.002	.028	.030	.000	.000	.001	3745
9003	.187	.000	.154	.004	.000	.012	.000	.000	.001	.000	.001	.000	.012	.000	.001	.030	.010	.000	.000	.000	17494
9004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
9005	.334	.002	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	1026

REPORT #: 63-04-2
DATE: 09/28/77 YARDS NORFO

CV 59 --- ALTERATIONS --- REAL SHOPS

SHOP RA

SHOP ENTRIES ARE MANNING RATIOS AND THEIR SUM = 1 FOR EACH

3

CRAFTS SHOP

	1	6	11	17	23	26	31	36	41	51	56	64	65	67	71	72	81	94	99	TOT	MD
5001	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
5002	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
5003	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
5004	-032	-000	-114	-102	-000	-145	-019	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	5347	
5005	-066	-000	-161	-072	-000	-155	-016	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	13165	
5006	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
5007	-004	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
5008	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
5009	-035	-002	-023	-009	-000	-043	-126	-000	-324	-003	-098	-101	-016	-000	-031	-027	-171	-000	-000	5465	
5010	-002	-001	-034	-016	-000	-005	-134	-000	-294	-003	-065	-157	-021	-000	-011	-097	-000	-000	-000	12094	
5011	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
5012	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
5013	-020	-000	-162	-015	-000	-252	-021	-000	-001	-007	-081	-266	-036	-000	-000	-003	-051	-000	-000	6129	
5014	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
6001	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
6002	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
6003	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
6004	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
6005	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
6006	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
6007	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
6008	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
6009	-060	-000	-156	-163	-000	-169	-013	-000	-000	-000	-000	-140	-187	-004	-000	-001	-030	-061	-000	16977	
6010	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
6011	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
7001	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0	
7002	-024	-000	-171	-052	-000	-195	-051	-000	-078	-002	-008	-179	-055	-000	-000	-031	-074	-000	-000	35348	
7003	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0		
7004	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0		
7005	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0		
7006	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0		
7007	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0		
8001	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	1948		
8002	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0		
8003	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0		
8004	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0		
8005	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0		
9001	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0		
9002	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-044	-000	-044	-000	-000	-000	-000	45		
9003	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0		
9004	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0		
9005	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	0		

REPORT #: 63-04-2
DATE: 09/26/77
YARD: NORFOL

CV 59 --- REPAIRS AND ALTS --- REAL SHOPS

CH 99 9111

SHOP RATIO REPORT

(SHOP ENTRIES ARE MANNING RATIOS AND THEIR SUM = 1 FOR EACH DMPM)

DMPN\SHOP	1	6	11	17	23	26	31	36	41	51	56	64	65	67	71	72	81	94	99	TOT	NO	
5001	.011	.000	.030	.115	.000	.037	.000	.000	.000	.254	.391	.043	.000	.000	.020	.099	.000	.000	.000	.737		
5002	.018	.000	.041	.281	.000	.056	.019	.000	.065	.352	.056	.017	.000	.000	.041	.052	.000	.000	.001	3649		
5003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0		
5004	.032	.000	.077	.071	.005	.098	.024	.000	.000	.000	.000	.029	.000	.000	.022	.091	.000	.000	.000	9100		
5005	.042	.000	.070	.029	.000	.087	.164	.000	.041	.016	.070	.324	.039	.000	.001	.030	.087	.000	.000	50467		
5006	.035	.000	.385	.000	.000	.254	.064	.000	.066	.000	.000	.000	.005	.000	.001	.000	.001	.000	.000	263		
5007	.054	.001	.005	.004	.000	.015	.123	.000	.392	.015	.284	.059	.007	.000	.003	.043	.000	.000	.000	1801		
5008	.034	.000	.115	.066	.000	.072	.067	.000	.262	.004	.174	.033	.030	.000	.000	.028	.116	.000	.000	4259		
5009	.031	.002	.023	.009	.000	.047	.121	.000	.284	.002	.128	.121	.016	.000	.026	.026	.159	.000	.000	6223		
5010	.064	.002	.068	.015	.000	.111	.000	.064	.000	.264	.023	.060	.167	.019	.000	.000	.015	.068	.000	.000	25516	
5011	.035	.000	.080	.017	.000	.071	.159	.000	.259	.004	.081	.048	.050	.000	.000	.031	.162	.000	.001	10470		
5012	.009	.000	.000	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0	
5013	.028	.000	.182	.015	.000	.021	.008	.001	.007	.081	.246	.034	.001	.003	.016	.051	.000	.000	.000	6129		
5014	.026	.000	.007	.006	.000	.042	.737	.000	.097	.000	.000	.067	.001	.000	.016	.001	.000	.000	.000	5609		
6001	.051	.000	.041	.001	.000	.169	.009	.000	.005	.000	.009	.429	.023	.000	.016	.245	.000	.000	.000	929		
6002	.064	.000	.107	.000	.000	.072	.000	.000	.002	.000	.039	.027	.000	.000	.030	.538	.151	.000	.000	5817		
6003	.000	.000	.000	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	273		
6004	.259	.000	.000	.741	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	27		
6005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0	
6006	.049	.000	.056	.301	.000	.130	.001	.000	.013	.000	.000	.121	.000	.024	.000	.030	.054	.000	.000	9675		
6007	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0	
6008	.000	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0	
6009	.068	.000	.156	.163	.003	.169	.013	.000	.008	.000	.000	.014	.107	.084	.000	.001	.030	.061	.000	.000	14901	
6010	.018	.000	.152	.056	.000	.227	.000	.005	.449	.002	.007	.019	.000	.000	.038	.043	.000	.000	.000	1296		
6011	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0	
7001	.264	.000	.001	.001	.000	.000	.000	.027	.000	.163	.000	.061	.015	.005	.000	.402	.039	.023	.000	1285		
7002	.026	.000	.155	.050	.000	.171	.055	.000	.109	.003	.105	.160	.053	.000	.029	.063	.000	.000	.000	42566		
7003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0	
7004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0	
7005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0	
7006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0	
7007	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	2130		
8001	***	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	27		
8002	.000	.000	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0	
8003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0	
8004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0	
8005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0	
9001	.093	.000	.010	.022	.000	.015	.033	.000	.265	.035	.225	.165	.000	.003	.103	.002	.002	.026	.000	.000	2199	
9002	.014	.002	.008	.016	.000	.026	.079	.000	.1%	.103	.197	.281	.017	.000	.002	.026	.030	.000	.001	3798		
9003	.187	.000	.154	.004	.000	.012	.000	.000	.000	.000	.000	.000	.000	.000	.000	.010	.035	.000	.000	17494		
9004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	0	
9005	.334	.002	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	1826		

Unit 18 (Output) – Shop Manning Report

REPORT: 63-04-3
DATE: 09/28/77 VARDS NORFO

CV 59 --- REPAIRS --- REAL SHOPS

SHOP HANNING REPORT

(SHOP ENTRIES ARE MAN DAYS)

REPORT #: 63-04-3
DATE: 09/28/77 YARD: NORFOLK
CV 59 --- ALTERATIONS --- REAL SHOPS

(SHOP ENTRIES ARE MAN DAYS)

DMR\SHOP	1	6	11	17	23	26	31	36	41	51	56	64	65	67	71	72	81	94	99 TOR NO
5801	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5802	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5803	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5804	165	610	543	0	774	96	0	0	0	0	0	0	0	0	0	0	0	0	0
5805	866	2117	952	0	2047	241	0	0	0	0	0	0	0	0	0	0	0	0	0
5806	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5807	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5808	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5809	190	13	123	51	0	235	686	0	0	0	0	0	0	0	0	0	0	0	0
5810	990	9	416	198	0	1022	1625	0	0	0	0	0	0	0	0	0	0	0	0
5811	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5812	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5813	172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5814	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6801	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6802	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6803	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6804	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6805	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6806	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6807	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6808	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6809	1014	0	2330	2445	0	2535	192	0	0	0	0	0	0	0	0	0	0	0	0
6810	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6811	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7801	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7802	871	0	6204	1872	0	7091	1062	0	0	0	0	0	0	0	0	0	0	0	0
7803	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7804	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7805	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7806	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7807	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8801	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8802	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8803	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8804	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8805	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9801	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9802	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9803	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9804	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9805	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

REPORT: 63-04-3
DATE: 09/28/77
YARD: NORFOLK
CV 59 --- REPAIRS AND ALTS --- REAL SHOPS

SHOP MANNING REPORT (SHOP ENTRIES ARE MAN DAYS)

DMPM\SHOP	1	6	11	17	23	26	31	36	38	41	51	56	64	65	67	71	72	81	94	99	TOT	MD
5001	6	0	22	85	0	27	0	0	0	0	187	288	32	0	0	15	73	0	0	0	737	
5002	66	0	148	1025	0	204	71	0	237	3	1285	204	62	0	0	151	190	0	0	3	3649	
5003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5004	295	0	703	650	0	886	218	0	0	50	896	4118	260	0	0	201	624	0	0	0	9100	
5005	2104	24	3545	1452	0	4391	8258	0	2056	610	3530	16374	1993	0	36	1503	4398	6	5	50487		
5006	10	0	109	0	0	72	16	0	16	0	0	0	24	0	0	20	12	0	0	0	283	
5007	54	1	5	4	0	15	123	0	392	15	284	50	7	0	0	6	43	0	0	0	1001	
5008	144	0	489	279	0	306	286	0	1117	19	739	139	127	0	0	118	496	0	0	4259		
5009	194	13	145	59	0	291	754	0	1768	15	795	753	112	0	176	159	989	0	0	6223		
5010	1625	44	1735	376	0	2822	2148	0	6743	592	1527	4782	491	0	0	374	2255	2	0	25516		
5011	365	0	634	163	0	745	1668	0	2715	45	844	499	526	0	0	329	1694	0	0	23	10470	
5012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5013	172	0	1118	92	0	1542	129	0	4	45	494	1508	206	0	0	508	311	0	0	6129		
5014	141	2	37	30	0	227	3984	0	527	2	0	365	4	0	0	84	6	0	0	5409		
6001	47	0	36	1	0	157	6	0	5	0	0	399	21	0	0	117	228	0	0	929		
6002	370	0	624	1	0	419	0	0	0	0	9	0	227	156	0	1	3129	881	0	0	5817	
6003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	0	0	0	273		
6004	7	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	
6005	475	0	543	3299	0	1254	13	0	130	0	1175	1744	232	0	0	289	521	0	0	9675		
6006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6008	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6009	1018	0	2330	2445	0	2535	192	0	125	5	2090	1609	1254	0	14	445	916	0	3	14981		
6010	23	0	197	73	0	294	32	0	6	529	2	9	25	0	0	49	55	0	0	1294		
6011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7001	318	0	1	1	0	0	0	0	33	0	196	73	16	0	0	484	47	0	0	1205		
7002	1103	8	6618	2121	0	7284	2350	0	4621	143	4467	6799	2268	0	0	1249	3525	21	0	42568		
7003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8001	2130	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	
8002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9001	204	0	23	49	34	73	583	78	391	748	1065	65	0	0	0	237	4	56	0	2199		
9002	53	9	32	67	299	206	0	10	14	531	218	0	0	0	0	181	6277	5	3790			
9003	3267	8	2761	73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4014	17494	
9004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9005	363	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

